PLANNING AND SCHEDULING DIPLOMA

EARNED VALUE MANAGEMENT

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EARNED VALUE TECHNIQUE (EVT)

- The **Earned Value Technique (EVT)** compares the cumulative value of the budgeted cost/work hours of work performed **(EV or BCWP)** at the original allocated budget amount to both the budgeted cost/work hours of work scheduled **(PV or BCWS)** and to the actual cost/work hours of work performed **(AC or ACWP).**

- This technique is especially useful for cost control and resource management.

EVM

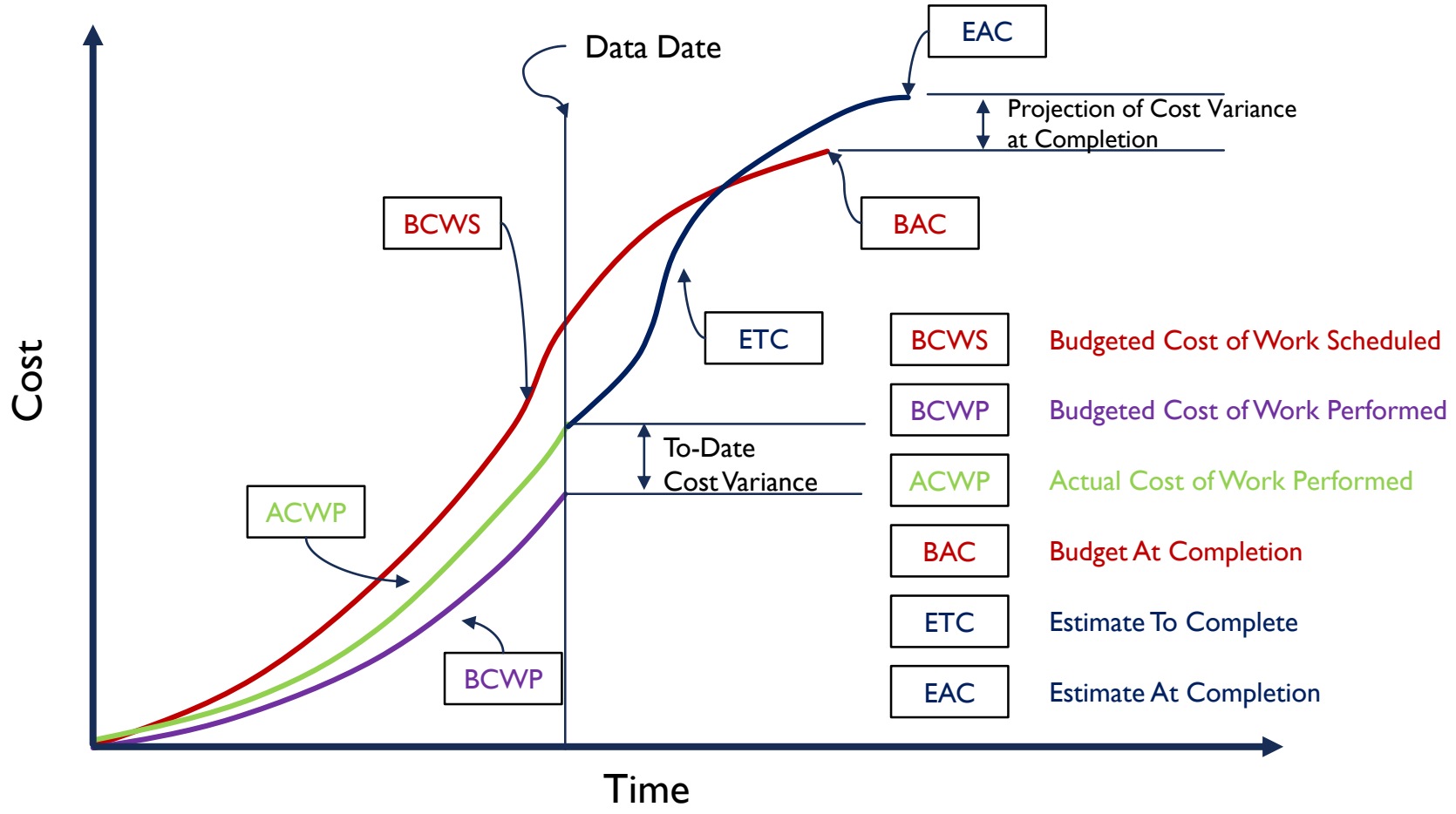
INTEGRATED TIME AND COST CONTROL

- **Budgeted Cost of Work Scheduled (BCWS) – (PV):** it indicates the amount budgeted (estimated) for the activities. Knowing the project schedule, it is possible to determine the amount of money budgeted relative to time.
- **Budgeted Cost of Work Performed (BCWP) – (EV):** it indicates what the budgeted costs are for the work that has been actually performed to date.

Earned Value = Completion % X Budget (man-hour or EGP)

- **Actual Cost of Work Performed (ACWP):** it indicates the actual cost to date.

INTEGRATED TIME AND COST CONTROL



INTEGRATED TIME AND COST CONTROL

- **Cost Performance Index (CPI)** $= \frac{BCWP}{ACWP}$
- **Schedule Performance Index (SPI)** $= \frac{BCWP}{BCWS}$

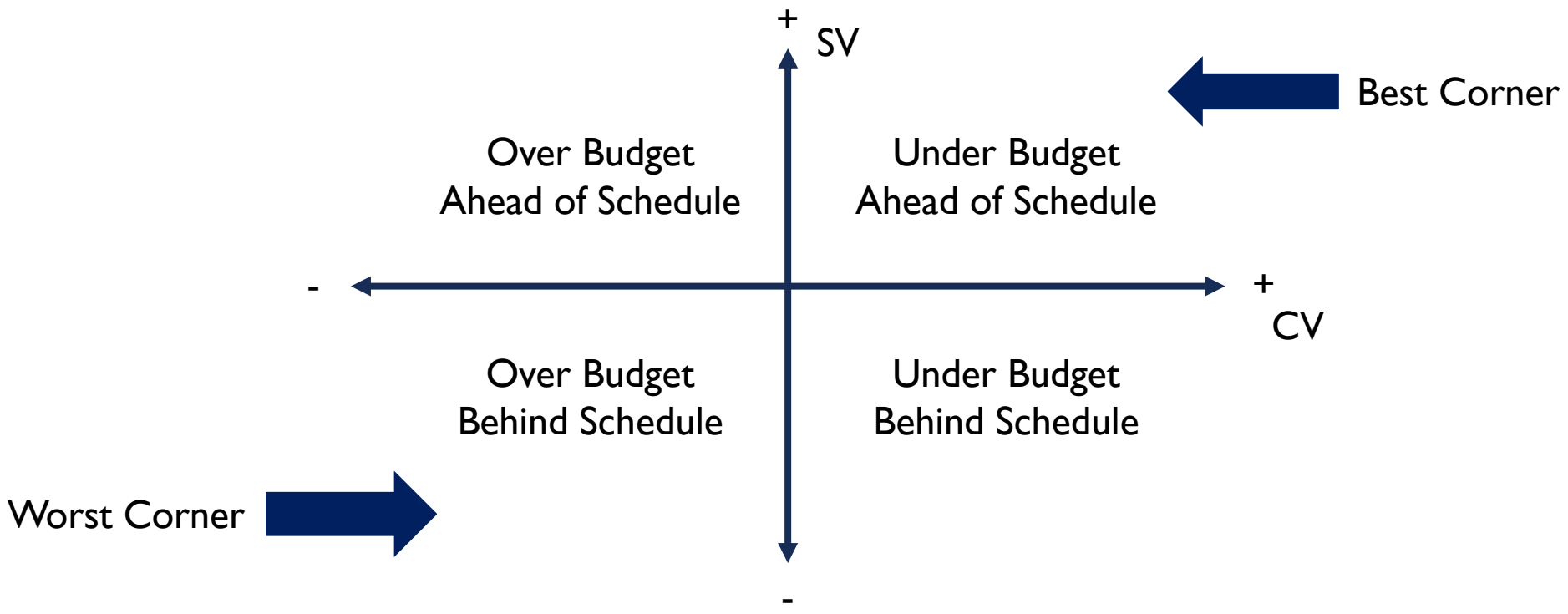
Parameter	Value > 1	Value < 1
CPI	Under Budget	Over Budget
SPI	Ahead of Schedule	Behind Schedule

INTEGRATED TIME AND COST CONTROL

- **Cost Variance (CV)** $= BCWP - ACWP$
- **Schedule Variance (SV)** $= BCWP - BCWS$

Parameter	Value > 0	Value < 0
CV	Under Budget	Over Budget
SV	Ahead of Schedule	Behind Schedule

INTEGRATED TIME AND COST CONTROL



ESTIMATED COST AT COMPLETION

- **Assumption 1: Rate of Progress prevailing to date will continue to prevail until project completion.**

$$\text{EAC} = \frac{BAC}{CPI}$$

EAC: Estimated Cost at Completion (in EGP or man-hours)

BAC: Budget at Completion (in EGP or man-hours)

- **Assumption 2: Work from this date foreword will progress at the planned rates whether or not these rates have prevailed to date.**

$$\text{EAC} = ACWP + (BAC - BCWP)$$

EARNED VALUE MANAGEMENT

WORKSHOP

THANKS FOR WATCHING